THE VINE:

ITS CULTURE IN THE UNITED STATES.

WINE MAKING

FROM GRAPES AND OTHER FRUIT; USEFUL RECIPES, &C.

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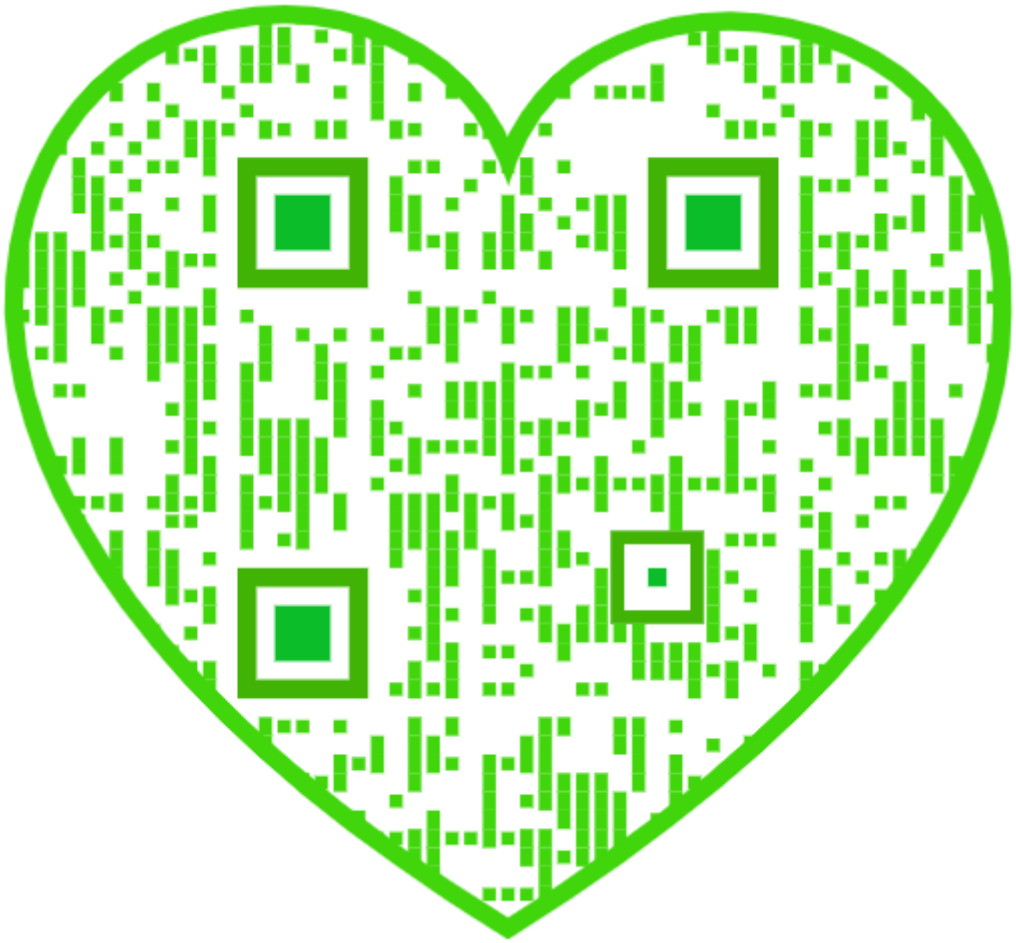
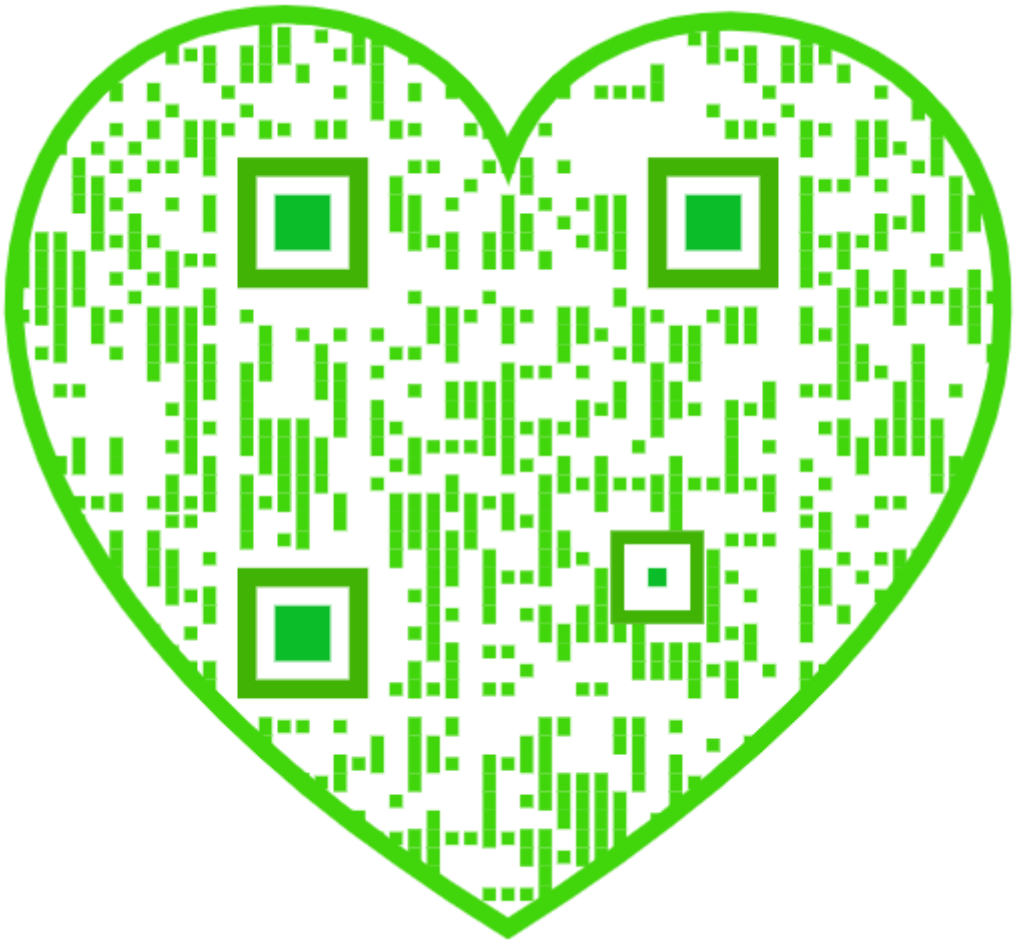
HARTFORD:

PRESS OF CASE, TIFFANY AND COMPANY.

1855.





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INTRODUCTION.

To encourage and aid the many who are commencing the cultivation of the vine, and the making of pure wine from grapes and other kinds of fruit, is the chief motive in publishing these pages. The writings of many who have contributed essentially to advance this useful branch of horticulture, have been freely consulted and compiled, and it is believed that judicious selections from practical writers and successful cultivators, will be more acceptable, than a lengthy detail of abstract opinions alone. From my own experience in grape culture and wine-making, though limited, and from the decided opinions of those well informed, it is evident that our nation need never import another gallon of foreign wine, or any kind of spirituous liquors—that the vine is a native of our own soil and climate, (which can not be said of it in Europe,) and that wine has within a few years been made here, which has of the same age, excelled some of the best wines of the old world. In truth an article far better and more medicinal for people of our climate, can be made from our *native Blackberry*, than most which is imported at high cost; and could our native wines supersede those now mostly

used, those vile compounds called pure Port, Malaga, Champagne, &c., and chiefly compounded of whiskey, cider, sugar of lead, logwood, green corn, etc., would take their final exit from our land, and also would take away in their flight their usual concomitants, impaired health, and *vitiated appetite* for *spirituous liquors*. It is not supposed that the great leading interest in this latitude in America, will be the cultivation of vast vineyards for wine, yet every person who owns a house and six feet in width around it, can in a very few years with trifling labor and expense, raise grapes sufficient to supply abundantly an ordinary family with fruit, from September until February, or March, besides wine for medicinal uses. Those who prefer not to extract the wine, can readily dispose of all their surplus grapes, if of good variety, in our markets at a fair profit.

So little foreign wine is sold in our country in its pure state, that a friend of the author, the late Judge Woodruff, who visited the wine countries of the east, remarked, that the only certain way to obtain it unadulterated, was to press out the juice and make the wine yourself, bung it tight, and then get astride the cask and ride it all the way home. It is stated that more wine is annually sold in New York for the pure article, than passes through the custom-house in ten years, although we import six or seven million gallons yearly, and at a cost to the consumer, probably of eight or ten million dollars.

CULTIVATION OF THE VINE.

SOIL AND LOCATION.

THE soil best adapted to the vine in this latitude, is a dry warm loam which can be readily pulverized, and not liable to bake, or become compact under the influence of rain and sun, with subsoil of a porous, gravelly or stony texture, that the roots may easily penetrate to a good distance. A sandy soil with rocks or gravel beneath, is preferred by many, but where the subsoil is clayey and too retentive of water, it should be taken out some feet in depth, and replaced with surface mould, stones, old lime, sand and the like. A sandy soil is said by Mozier in his memoir on the vine, "to produce a fine pure wine; the gravelly and stony, a delicate wine; rotten and broken rocks, a fumy and generous wine of superior quality."

Where clay predominates, a plentiful admixture of sand a little elevated, makes a good soil. Old land is considered by vinegrowers preferable to new land. A hilly or rolling surface is generally better than a level, and elevated ground better than the low.

Arthur Young, the celebrated agricultural traveler, says, "in France, immense tracts of land may

be ranked among the most valuable, which in Britain would be absolute waste; in Pellecoy I passed vineyards so steep, that it is strange how men can stand at their work—one-third of the country under vines planted on absolute rocks, but calcareous (limy.) In Cohors, nineteen-twentieths under vines, many of them more than two hundred years old." Hills in the neighborhood of ponds, rivers, or the ocean, where the leaves can readily imbibe moisture, are friendly to the vine. If the soil is humid, cold or clayey, thorough underdraining must be accomplished, before the vine can flourish. Wild vines growing in wet alluvial positions, when transplanted and cultivated in dry soil, are sensibly improved; the grapes become thinner skinned, the seeds less and the pulp softer and sweeter. It is ascertained that on the summit of hills or elevated ground, the temperature is more mild and uniform than in the valleys beneath; consequently such locations are better adapted to the grape, as well as to the apple, peach and other fruit. Dr. Kirtland of Ohio, has applied the test of science to this subject. He stationed himself on a hill with a thermometer, lantern and watch, on a night when a severe frost was expected; while his brother stood with a thermometer, lantern and watch in the valley below. Each made and recorded observations, every half-hour during the night, and the result was as follows. From sundown until nine o'clock, both thermometers indicated the same degree of temperature. At nine

o'clock, the mercury in the valley thermometer, commenced sinking, while that on the hill, at the same time, began to rise; and the doctor observed a perceptible current of warm air, flowing up from the valley. At twelve o'clock, the thermometer in the valley indicated *twelve* degrees lower temperature than that on the hill, and about the same difference was observed until daylight in the morning. The rays of the sun also concentrate in a valley, causing extreme heat, while on elevated ground they are more diffused, and the heat less intense, and more uniform.

PROPAGATING AND PLANTING.

Grapes may be propagated by the seeds, by layers, by cuttings or by grafting. If it is desired to produce *from the seeds*, they should be taken from those clusters which are the earliest, largest, and best ripened, and from those berries having the *least* number of seeds. Like tends to produce like, and by careful selection of the seed, all vegetables can be improved. There is however in the vine, some uncertainty in its fruiting when raised from the seed, owing to the fact, that in some cases the vine is deficient either in stamens or pistils. Many vines growing wild in the woods are barren or male, which by engrafting, can be made productive. The *quickest* way of raising grapes is from layers, or from the root.

PROPAGATING BY LAYERS.

Bend down a shoot from the vine, and cover it with two or three inches of earth or inverted turf, and pin it to its place by sticks put across it into the ground, or lay a stone upon it, leaving two or three buds on the end above the ground. It will readily take root if not too dry, and can be cut from the parent vine very early in the spring, or in the fall, and will sometimes bear fruit the next summer.

PROPAGATING FROM THE ROOT.

A healthy root will often produce grapes the first season it is planted, if done with care; but more generally the second season. It should never be permitted to ripen but few at first, as it would injure its future productiveness and vigor. Some are in favor of setting out their vines in the fall, but my own experience indicates spring as the better time. The hole to receive the roots should be made broad and deep, that they may have room to ramble to a distance, as they will do, if the earth is made mellow and mixed with proper ingredients. Bones, old leather, street scrapings, old plaster and bricks, turf compost, soap-suds, &c., constitute the best manure for vines. Fresh stable manure should never be placed in contact with the roots, nor any substance tending to ferment, or form an acid or salt of a highly stimulating nature.

Bones, are perhaps the best of all substances to

promote the vigor of the vine. In digging up a grape root two years since which had been planted near a few bones, I was surprised to see the avidity with which the roots sought after them. Every bone was literally covered with a network of fibrous roots; the cavity of each was filled with them, so that it was impossible to remove them, without tearing the roots in pieces. This vine had been remarkable for its rapid growth, and dark foliage.

In April, 1854, I planted on my place in Windsor about fifty grape roots, mostly Isabella, with a few Catawbas and others, as follows: I had the ground trenched on which the rows were set, to the depth of two feet, and in the bottom placed stones and brush, then filled in with loam, sand, oyster shells, blacksmith's cinders, bones, ashes, and some well rotted manure. On this bed I planted the roots which were two years from the cuttings. The rows were four and a half feet apart, and the vines nine feet distant from each other in the row. The next day, snow fell four or five inches deep, with a freezing north wind for several days following. The ensuing weeks were remarkable as a time of *general deluge* in this part of the country, and as luck would have it, this extreme was followed in August, by an extreme the opposite way; for a drought occurred, more severe it is said, than for thirty years previously. But notwithstanding the unpropitious season, every vine but one survived, and some of them grew to the length of six or seven feet during the summer. Some Isabella

vines which I planted six years since, are now five inches in circumference, and have borne abundantly for three years past. I have made wine from them of superior quality, and have kept some of the fruit until April.

In March 25th, 1853, I planted in the District of Columbia, on land which I purchased, about two hundred Isabella and Catawba vines which I carried from Connecticut, in a similar manner to the foregoing, and in a few weeks many of them had set for fruit. An enterprising gentleman from New York purchased a lot adjoining, and planted about eleven hundred grape roots, principally of the Catawba, with the intention of raising grapes for the northern markets. My small thrifty vineyard soon brought me a purchaser for the place, at a pretty fair advance.

BY CUTTINGS.

The following is copied from an excellent work on the grape, written a few years since by Mr. A. Spooner of Long Island, and contains plain and sensible directions which can be safely followed.

"Any well ripened wood of the *last* year's growth is good for a cutting, but the nearer it is to the old wood, the more likely it will be to succeed, and even if a small piece of the old wood remains, it will be all the better. A cutting should embrace three or more buds, and should be taken from the plant before the circulation of the sap commences,

and be from six to twelve inches in length. They are taken from the vines at the pruning in March, or may be taken at any time between the first of November, and first of April. About an inch of wood is left above the upper bud, and should be cut sloping at the back side from the bud, in order that it may be protected. They are then buried in the earth, or kept in the cellar until wanted for setting out. They are first set in a garden or well protected ground, and at a distance of six to twelve inches apart, in rows which may be a foot or more apart. At the lower end which goes into the ground, the wood is cut as near the bud as it can be, without injury. They are set in the ground so deep, that the topmost bud shall just come to the top of the ground, so as to receive the benefit of earth and air, as this is the only bud which shoots above the ground, the others going to the formation of roots. If the season should be dry, they will require watering several times. I consider a shady spot but little exposed to the sun, as being preferable for cuttings. Sometimes they are put endwise in a pot or box, and filled in with earth and watered. In this manner, a great number may be put in a small space for transportation. I once successfully sent cuttings from New York, to Little Rock in Arkansas by way of New Orleans. These were placed in grassy sods of earth a little moistened."

"The cuttings will in the first year throw up a shoot from the top bud; if two should come forth, the weakest must be taken away, and if none

should come, it is not certain that the cutting is dead, as it will sometimes throw out a shoot underground, and push its way to the surface in the next season. If the cutting throws out a strong shoot the first season, you may, at the next March pruning, cut it down to two buds from the main stalk, or if a weak shoot, cut it to one bud. The young vine is sometimes transplanted to its permanent place about this time."

The writer of this has received cuttings by mail sent from Detroit, Michigan, to Windsor, Conn., and most of them proved to be in growing order. There were two buds only on each, and were waxed on both ends and inclosed in a little moss, and enveloped in paper similar to a public document, and the postage prepaid by weight.

GRAFTING THE VINE.

A vine wild and worthless, can by a few moments' labor in grafting, be made to bear plentifully of any desirable sort of grapes. A writer, Mr. Herbemont, says: "The mode which I practice usually, and which is attended with no difficulty and very seldom fails, is as follows: If the vine I wish to graft is in the place I desire to have it, all I do is to take away the earth around it to the depth of four or five inches. saw it off, or cut it off with a sharp knife about two or three inches below the surface of the ground. (The depth may be regulated by the length of the scion used.) Split it with a knife

or chisel; and having tapered the lower end of the scion in the shape of a wedge, insert it in the cleft stock so as to make the bark of both coincide (which is perhaps not necessary with the vine)—tie it with any kind of string merely to keep the scion in its place; return the earth to its place, so as to leave only one bud of the graft above the ground, and the other just below the surface, and it is done. If I have no vine where I wish to have one, I dig it out of the woods, cut it off as before described—insert the scion—tie it, and plant it where wanted, leaving as in the other case only one bud or two at most, above the ground. All the care now required, is to surround it with sticks to prevent its being trampled on or otherwise injured, and to notice the shoots that may grow below the scion, that they may be immediately taken off close to the stock, taking care not to move the scion or graft, which might prevent its taking. Such grafts usually grow as soon as other buds of the vine in the neighborhood, but it sometimes happens that they start later.

"When the stock or the vine into which you wish to insert a graft is too large to be conveniently split, or is several inches in diameter, after having sawed it two or three inches below the surface nearly horizontally, I take a gimlet, or carpenters' stock and taper bit, and bore one or more holes according to the size of the stock, about an inch and a quarter deep. I then prepare the scion, which in this case ought to be selected pretty large, and by cutting

the bark of it, and a little of the wood all round within an inch and a quarter of the lower end, fit it to the hole, and push it in till the shoulder of the bark made by the cutting, comes down to the sawed surface of the stock, and if the stock is large enough to require two or three grafts, after having fitted them all in, I return the earth, leaving only one or two buds above the ground as above, and the work is done. As this last method of grafting usually succeeds as well as the first, it would seem to indicate that it is unnecessary in grafting the vine, that the bark of the stock and that of the scion, should coincide exactly, as it must in all other kinds of fruit.

"I have generally succeeded best when I have grafted late in the spring, and just before the buds of the vine burst into leaves; that is, when the sap is flowing pretty freely. It is, however, a matter of some importance, that the scions should have been kept back if possible, so that their buds are only beginning to swell, and this must regulate the time of grafting. They may be kept back by burying them in as cold a place as possible, as the north side of a house, or in a box of sand placed in an ice-house. The scion thus kept back may be used with complete success, so late as when the vine for the stock is in full leaves."

One writer recommends grafting the vine about the 25th of June, when the foliage is fully expanded, if the scions can be kept back; and others prefer to have it done as soon as the frost leaves the ground.

The scions can be kept well, in clean damp sand, or in moss a little damp, or the end stuck in a potato.

MANURING AND CULTURE.

When the young vineyard is planted, some other crop, if not too exhausting, can, during the first year, be raised between the vines, without material injury to them, and some continue the practice even longer; but when the vines commence bearing, no other crop should be taken from the land, as less would be gained than lost, in their future growth. Grass and weeds should be exterminated, and mulching, or covering the ground with leaves or other litter, especially during the hot months, has an excellent effect in preserving an equal degree of moisture and heat, and in keeping down weeds or grass. Some manure their vines every third year, by trenching to the depth and width of a spade, and throwing in two or three inches of well rotted manure. Others spread the manure on the surface and plow it under, while others scatter it on the surface and dig it under with the hoe.

Mr. Corneau, a successful cultivator, says, that high manuring accelerates a larger growth of wood, and a more attractive looking fruit, while the more essential qualities of the grape for *wine*, are very much deteriorated. Mr. Spooner remarks, that "although the vine will flourish on poor dry and sandy soils, yet after a few years it exhausts the

soil around it, and requires manure. But it must be given with much prudence and not in excess. Liquid manures are to be prefered, and stable manure mostly avoided. Leaves of all sorts, (its own leaves the best,) and peat, or swamp earth, are desirable. Bones and animal manure from slaughter houses are much used, as also lime and gypsum. *Soap-suds*, soot, poudrette, guano, ashes of all kinds, street and road manure, all are good for the grape, and every family makes enough for several vines. Fish and sea-weed are much used in France, but the latter is said to give a peculiar taste to the wine. New earth must be applied where the vines are on a side hill, to replace that which washes away. If the vines become yellow, it is an indication of weakness in the root, and that manure is required. It is best applied in the *fall*, or early in spring."

Respecting the distance at which vines should be planted, cultivators differ in opinions and practice. Mr. Buchanan, an intelligent and extensive vine-grower in Ohio, remarks that, "our native varieties with their long joints, large foliage, and luxuriant growth, require more room to grow than the short-jointed vines of the Rhine. Hence, our German vine-dressers have sometimes erred in planting too close in this country, as three and a half feet by four, four by four, &c. For steep hill sides, three feet by five may answer, but for level land, four by seven is better; this will admit the sun and air to mature the fruit, and leave a liberal space for the roots to

grow." Dr. Underhill, of New York, a very successful vine-grower, has a vineyard of between twenty and thirty acres, from which he raises immense quantities of grapes for New York market, which bring from ten to fourteen cents per pound. They are chiefly of the Isabellas, and the vines stand about six feet apart in the rows, and the rows six to eight feet distant from each other, with an occasional wider space for a cart-path. The vines are supported by posts ten or twelve feet apart in the rows, and are about six feet above the ground. Three trellises of wire are stretched upon the posts, and wound around nails driven into each post. The lower wire is about one foot from the ground, and each wire and post receives a coating of *coal tar*, which serves an excellent purpose of preserving the iron and wood from rust or decay. A gentleman at Germantown, Pa., has adopted a similar plan with his vineyard of several thousand vines. His rows stand seven feet apart, and the vines five feet in the rows. He uses wire number eleven annealed. He never allows his vines to reach a hight of over four feet when fresh pruned, and at five years of age, fifty clusters to each vine are suffered to ripen. One acre if set three feet by six, would contain 2,420 vines; if set four feet by eight, it would contain about 1,360.

PRUNING.

The following concise directions for pruning the

vine, are given by Mr. Buchanan in his able work on grape culture. "When a vineyard is planted in the spring with cuttings, the next spring cut the young vine down to a single eye or bud, and drive a stake six or seven feet long, firmly to each plant. Locust or cedar is preferred, but oak or black walnut charred on the end or coated with coal tar, will last nearly as long. Keep the young vine tied neatly to the stake with straw—pick off all suckers, and let but *one* stalk grow. The second spring cut down to two or three eyes or joints, and the third spring, to four or five. The third year the vines will produce a few grapes. Train two canes to the stalk, this year, take off laterals and keep well hoed. Pruning can be done during any time from the falling of the leaves until March, or until the sap begins to flow." Although Mr. Buchanan and some others practice spring pruning, I have generally pruned my own vines in the fall after the leaves have dropped, or in the early part of winter, and have succeeded well in every instance. I see no reason why the root should be required to support life in all the branches through the winter, and then be summarily shorn of them in the spring.

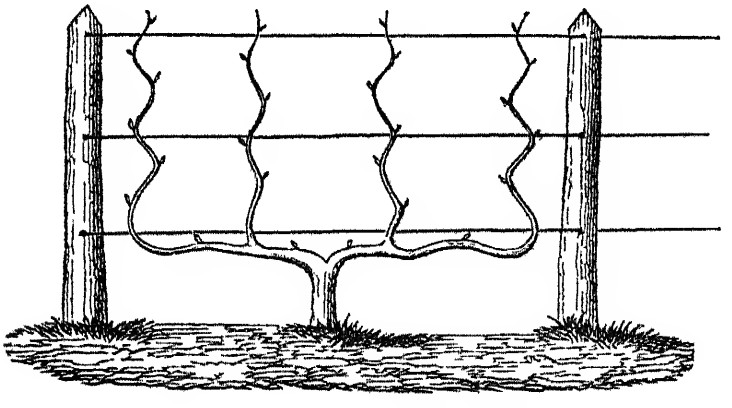
Mr. B. says, "The fourth year, pruning requires good judgment, as the standard stem or stock has to be established. Select the best shoot of last year, and cut it down to six or eight joints, and fasten it to the adjoining stake in a horizontal position, or bend it over in the form of a bow, and tie it down to its own stake. This is the bearing

wood. The ties should be of willow. Cut the other cane down to a spur of two or three eyes, to make bearing wood for the next season. Various modes of training are adopted; some tie the shoot up to the stake perpendicularly, with two or three ties. The greatest part of the German vine-dressers, make circular bows with three ties; and another mode is to make half-circle bows, as follows. Give the shoot the first tie to the stake, nine inches from the ground, and the second nine inches above it; then bow it over to the neighboring stake in a horizontal position, and give it the third tie to that stake at the top of the vine. In the succeeding and all subsequent years, cut away the old bearing wood, and form the new bow or arch from the best branch of the new wood last year, leaving a spur as before, to produce bearing wood for the coming year; thus keeping the old stalk down to eighteen or twenty-four inches from the ground. The vine is then always within reach and control. The best time for tying the vines to the stake is in the spring, when the sap begins to swell the buds and make them look white; then in damp weather the bow can be formed by a slight twist of the branch, and fastened to the stake without breaking; this requires to be done carefully. Should a vine be lost after the vineyard is in bearing, it can be replaced by a layer from the adjoining vine, which is a better mode than planting a young vine. The layers may be put down late in autumn, but spring is preferred. In summer pinch off the ends of the bearing

branches, two, three, or four joints beyond the upper bunch of grapes, according to the number it bears. Take off all laterals from the wood intended for bearing next year, and not break off the ends of these branches at all as is sometimes done; the leaves are the lungs of the plant, and while it is necessary to remove suckers and laterals, in order to throw strength into the *fruit* and *bearing* branches *for next year*, a liberal quantity of leaves should be left for the supply of both."

The above directions, it is to be observed, are designed for vineyards in the field, but as most people at the north have only a few vines, and those generally around the house or in the garden, upon arbors, &c., other methods of training and pruning can readily be adopted, and a little practice will soon enable any one to do their own pruning, without calling to their aid a *professor*. Mr. Spooner observes, that the "Isabella vines are so extremely exuberant in their growth and foliage, that it is not easy to prescribe rules for pruning and training, which will suit all cases. After your vine is transplanted to the spot where it is to remain, you are to train it according to the *space* you wish it to cover. I would advise, if the arbor, trellis, fence, or house will allow it, that it be trained about a foot from the ground, in two branches forking each way. It is thus within reach for a time, but you will soon require ladders to trim the vine and gather the fruit. Let it be particularly observed, that *the fruit always grows on the shoots of the present*

season, which spring from wood of *last* season. This is very important to be critically observed by every person who attempts to prune a vine. It may well be allowed to bear eight runners, trained horizontally or vertically, according to the taste of the cultivator; of these, *four* may at the winter pruning, be shortened down to a single bud, and the four others intermediate be trained vertically in a serpentine form, so high as to give the number of buds to which you would limit your vine. The long branches will bear fruit the present year, throwing out a shoot at every bud, and every shoot bearing several clusters. These shoots are to be cut down to a single bud, at the next winter pruning. The intermediate four spurs or buds, will each send forth *one* shoot, which must be trained vertically between the bearing branches on the trellis, or building; those are to be the bearing wood for the next year.



The above engraving illustrates the method adopted by many, of training vines upon wires running through posts set in the ground, or wound around nails driven into the posts. The manner of

pruning can be readily understood by the figure, and by the directions given. In this mode, the vine may be perpetuated and kept within a reasonable compass. But if some such rule is not adopted, your vine will grow beyond your reach, and bear fruit only at the extremities, leaving an unsightly mass of large old branches near the ground. In this country, where if neglected, vines will sometimes cover an acre of ground, and become dead and worthless in a few years, it is necessary to look to its perpetuity by good cultivation, and keeping it in proper compass. It is proper in the spring of the year, to strip off the ragged bark and moss which gather around the trunk, which will otherwise become a harbor for insects, and have a bad appearance. Washing with *soap-suds* gives the trunk a clean and healthy appearance."

Judge Woodruff, while on his European tour, in 1828, distributing supplies to the suffering Greeks, says, "Dec. 28th, I called on Mr. Loring, and rode out on horseback with him toward Malaga, about five miles, and had the satisfaction to see scores of vine-dressers now employed with their pruning-hooks in the vineyards. They cut away every new branch at the old stock excepting three or four, and on these they leave but three or four buds for next year's growth. The stumps stand in rows about five feet apart, and when pruned have the appearance of *dead shrub-oak stumps*, six or eight inches high." At Egina he says, "The vines are planted in rows three and a half feet distant from each other, and are suffered to grow about five feet high, rest-

ing upon poles supported by crotches set in the ground. Many of the clusters weigh from three to seven pounds, and are suffered to rest their heavy heads upon the ground." It must be remembered that the vines of Europe are not of European origin; they were imported from Asia two thousand years ago, and have become dwarfed and belittled by continued pruning, until they now bear to be planted in hills about as thick as our Indian corn. Their severe pruning and long neglect to propagate from the seeds, are thought by many, to be the chief causes of the rot upon their grapes with which they are at present afflicted, and of the gradual deterioration of their vines. I do not fully believe in the *square* and *compass* system of too close pruning our American vines; for our soil and climate, characterized by extremes of excessive heat, and abundant moisture, are adapted by nature for more vigorous and extended growth. *Over-cropping* is detrimental to the vine, and a part of the clusters of grapes, (some say two-thirds,) should be thinned out: the remainder will be larger, and will ripen better. Commence thinning soon after the berries are formed, and continue occasionally, until they attain more than one-half the ordinary size. *Downing* observes, that in order to obtain large and good looking fruit, "one-third of the berries should be taken off with the point of the scissors, especially those in the center of the cluster; and is to be performed when the berries are well set and formed."

DISEASE, INSECTS, ETC.

Though the grape is a hardy plant and a pretty sure bearer, yet, like other precious gifts to man, it is not proof entirely against disease. The blight or rot is the principal evil, especially with the Catawba variety in Ohio. This occurs about the time of hardening of the seed in July and August, after profuse rains and hot suns. It strikes suddenly, with disastrous effect. The cause is supposed to be an excess of water about the roots, and principally in clayey, heavy soil. Vines in sandy soil with a gravelly or rocky substratum, are most generally exempt from disease. Flowers of sulphur scattered over the vines in June and July, tend materially to prevent the rot which is thought to be allied to mildew. It will prevent it in the grape under glass. Wood ashes are particularly valuable, scattered upon the ground, and hoed under in the spring; they tend to neutralize acidity of the soil, and supply the alkalies which are absorbed by the leaves and fruit. A moderate use of ashes tends to sweeten the flavor of every variety of fruit. In the month of June the rosebug sometimes makes its appearance while the vine is in bloom, and dispensing its flagrance around. It feeds upon the blossoms and leaves, but can be destroyed early in the morning by jarring the vine, when they will drop upon a sheet if placed beneath to receive them. Syringing the vine with soap-suds, lime-water, sulphur-water, &c., has been tried with success. Rose-

bushes standing near, will usually invite away the ugly pests. A large green worm is occasionally found depredating on the vine, as well as on other plants. It can readily be detected by its small black droppings on the ground underneath, and should be summarily dispatched. Reliable horticulturists advise to cover the whole surface of the vineyard, with shavings, spent tan, leaves and twigs of the vine, to prevent ravages of insects and disease of the fruit. Nature indeed, seems to indicate the leaves as the natural manure and protection for the roots of all plants. This we see abundantly exemplified, in the warm clothing which annually covers the roots of our forest trees, and without which they would make but a stinted growth. The vine is so remarkably healthy, and of such luxuriant growth, in any proper soil, that diseases of its roots are almost unknown in this country.

WINE MAKING.

"Oh for a draught of vintage, that hath been
Cooled a long age in the deep-delv'd earth."

No uncommon skill is requisite in making good wine from grapes, and several other kinds of fruit. In New England where the people are so noted for all domestic comforts and conveniences of life, almost every family raises some kind of fruit, from which they can manufacture excellent wine with but little trouble or expense; and in sickness or debility, where stimulus is proper to be administered,

how much more healthful—how much safer it is, to take the pure invigorating product of nature, than to drug the system with the deadly poisons, in which common wine and alcoholic liquors too often abound. I have made good wine from different varieties of the grape, from the Blackberry, the Elderberry, the Whortleberry, the English Cherry, the Currant, &c., and without the addition of any kind of ardent spirits.

WINE FROM THE GRAPE.

Where but a few gallons are to be made, the following plan has been found to work very well. Gather the grapes when *fully ripe*, and cast aside all which are unsound or immature; put them into a clean tub or flour barrel, and then with a pounder or billet of wood with a square end, thoroughly mash the pulp and skins, but not the seeds; put the pomace thus made into a clean coarse cloth or bag, (a common salt sack answers very well,) and put this into a basket over a tub to receive the juice or must. A cheese basket and ladder is best where it can be had. Now place stones or other heavy weight upon the mass, and in that manner let it remain in a moderately cool place from two to four days, according to the degree of pressure, and heat of the weather, when the juice will be found almost entirely expressed. A little water can then (if desired) be added to the pomace and thoroughly stirred together, and the pressure upon

it renewed, which will extract the remainder of the liquid.

This simple process of obtaining the juice, serves by its gradual operation to incorporate with the wine all of the peculiar musk or aroma of the skins, and imparts a delicious flavor to the wine. In this way I have procured seventeen and a half quarts of juice from each bushel of grapes—being about one-quarter more than is ordinarily obtained from the vintages in Ohio. The common black, white, and purple, generally called *Fox grapes*, make a good high-flavored wine, and they can be found in abundance all over the states. The *Isabella* affords a pleasant lively wine of the richest flavor, but contains less of the musk so peculiar to the Fox grape. That quality, if relished, can be readily imparted to it by adding some of the other sorts, and pressing them together, or by mixing the wine afterward. Grapes in this latitude contain less saccharine matter than those which are raised farther south, and generally require *sugar* to be added in its manufacture. From one and a half to two and a half pounds per gallon, are to be incorporated with the juice immediately after it is pressed out, and before fermentation. I add about two and a half pounds of good sugar to each gallon of juice from the Fox grape, but for the Isabella, from one to two pounds is deemed sufficient.

A gentleman in Virginia has a statement in the recent United States Patent Office report as follows. "If the grapes are all very ripe, no sugar is

required; but if a part are a little green, one pound of good brown sugar per gallon is as much as I have ever used. The grapes are bruised and put into a crib and pressed as for cider; the juice is then put into a clean cask and allowed to ferment. In a month the wine should be drawn off and put into another cask and stopped tight. No brandy or any kind of liquor should be put into the wine. The Catawba and Isabella are the only kinds cultivated here."

It is ascertained that grapes which are sweetest to the taste do not always make the best wine, as there is often a difference in the *apparent* sweetness and the sugary principle which may be latent in the grape. Mr. Longworth of Cincinnati, who is perhaps the most experienced and successful grape-grower in this country, writes as follows: "In wine making, to insure success we must observe great care in selecting the fruit. Select good sweet casks, and use cleanliness in expressing the juice. Keep it in a cool cellar, cask tight, and carefully rack the same yearly, till the wine is perfectly fine; for wines that have no alcohol added, require tight casks and cool cellars to keep them sound. They are less subject to run into the acetous fermentation with us, than they are in France and Germany. To the *ropiness* of which they complain, our wine is not subject. So much depends on manufacture and reputation in Europe, that wine from the same variety of grapes, and vines divided by a foot-path in the same vineyard, have very different reputation.

The one will bring eighteen dollars per dozen, while its neighbor will not command three dollars."

The Wine Press in Ohio, is made similar to our cider press. A strong, tight, box platform from five to seven feet square, of two or three inch plank, and six or eight inches high at the sides, is wedged into heavy timbers; and in this, a box of one and one-fourth inch boards, five or six feet square, perforated with holes near the lower edge, and ten or twelve inches high, (made so as readily to be taken apart,) is placed to contain the mashed grapes. Boards or plank for a follower, are laid on top of the mass or cheese and inside of the box, and pieces of scantling or blocks are laid across, to receive the pressure from the screw, which is then turned down upon them.

An improvement consisting of inch strips of boards, is sometimes laid across the platform, and boards perforated with holes are placed upon them as a bottom for the box which contains the cheese. From one hundred and fifty to three hundred gallons can be pressed out in a day. Instead of a box as above, can not a cheese of mashed grapes be laid up with straw sides, similar to our common method of cider making? The experiment could easily be tried. The wine obtained from the first pressing is invariably the best, and the quality will be according to each successive pressing.

FERMENTATION

Is a process of much importance in wine making, and requires care and good judgment.

Buchanan in his able work on the grape, 1853, describes the process at Cincinnati as follows.

"The casks are filled within five or six inches of the bung, and the bung put on loosely, the gas escapes without the wine running over; usually in two or three weeks the fermentation ceases, and the wine becomes clear; then *fill* up the casks and *tighten* the bungs. In February or March rack off the wine into clean casks and bung tight. A second but moderate fermentation will take place late in the spring; after that the wine fines itself, and is ready for sale; and if the casks are kept well filled and tight, it will improve for many years. *Use no brandy* or *sugar* if the grapes are sound (Catawba grapes.) Since the above was written, an improvement has been adopted by many in fermentation. When the must or juice is first put into the cask, and the cask filled within an eighth or tenth of its capacity (to leave room for fermentation,) a tin siphon is fitted tight into the bung, with the other end of the tube in a bucket of water, thus permitting the gas to escape through the water without the wine coming in contact with the air; some of the strength and fruity aroma are thus retained, which would otherwise escape by exposure in the methods formerly pursued. The safest way of keeping this wine is in bottles well corked and

sealed, and laid on their sides in a cool place. It will do to bottle in about a year after it is made, but two years would be better." Writers differ as to the number of rackings it should receive, but Mr. Buchanan thinks that the fewer rackings and the less it is exposed to the air, the sweeter and better it will keep, and the better flavor it will retain. The casks ought to be new or perfectly cleansed, and should never be moved or agitated if possible after they are placed in the cellar, as that would stir up the lees and renew the fermentation, causing the wine to become acid.

That the reader may more fully understand the nature and process of fermentation which is so essential in wine making, I insert the following useful article by J. Brace, from the *Western Horticultural Review.* "The fermenting or *yeast* principle, is produced during vinous or first fermentation, from a vegetable gluten or gum, which exists in the juice of all fruits. This yeast or ferment is formed in greater or less quantity, as this gluten pervades more or less the fermenting mass; hence that having a large quantity will produce an abundance of the stimulating or fermenting principle, and in many cases to the injury of the wine. In drawing the juice of the grapes by pressing, some parts will become more charged with this gum than others, unless the whole amount pressed at once is run into a single receiver, in which case there will be more uniformity in the process of fermentation, than if it is put into a number of casks during the

time it is running from the press. This gum or mucilage is held in solution in the juice, and is invisible *before* the fermentation commences, but so soon as that process begins, the clear liquor becomes turbid and a separation takes place; some subsides and settles to the bottom, some becomes charged with carbonic acid gas. and floats on the top until the gas escapes, when it sinks to the bottom. This is the time to separate the wine from the superabundant yeast, as there will still be enough left to carry forward the fermentation with sufficient rapidity to insure a sound good wine. The wine then will not in all cases be clear, but if it is a little turbid it should be racked off and the cask well washed out with cold water, and the wine returned into it to complete the fermentation. Some wine will not require a second racking off, as the separation from the ferment or lees, will have been sufficiently effected, and the fermentation during its future progress will be moderate enough to fine itself bright and clear; but if that should not be the case, and it still continues roily, some article should be added to fine it." (This will be noticed under the head of *fining*.)

"Whenever the wine appears clear, it should be racked off, and in most cases it will become bright. The process of fermentation does not however stop here, as it is constantly progressing in the form of an *insensible* fermentation, elaborating and combining the elements of the new and acrid, and producing a mellowness of the wine that is only acquired

by age. If the wine has been fined or separated too much from the lees during the first racking off, it will be thin and wanting in body, and deficient in aroma. This can only be remedied by adding substances to it that will strengthen it, whether sugar or spirit, but either will injure the quality, and the produce will not be of the fine flavor or mellowness that is indispensable to good wine. The strength of wine depends upon the amount of sugar contained in the juice; a portion of this sugar is decomposed, and its alcohol combined with another portion during the fermenting process; now if the fermentation is hurried too rapidly, and is not suspended at the proper time, the spirit will then by another fermentation (the acetous) be converted into *vinegar*, and no manufacturing or doctoring will ever correct the wine after that change has occurred. The acid may be neutralized, but it will never be sound; for this reason a too rapid fermentation should be guarded against. Very *weak* wines are more liable to become acid than strong ones; because the amount of alcohol elaborated when there is an *abundance* of *sugar*, serves to check the rapid vinous fermentation, and prevent it from running into the acetous. I think the juice of well matured Catawba or Cape grapes, is strong enough to insure good wine without the addition of spirit or sugar."

Mr. Spooner of Long Island, says, that to each gallon of juice from the Isabella, he added from one to three pounds of sugar. He thinks it best to

stop the fermentation before it quite subsides, in order to preserve the briskness and aroma of the wine; and this is done by repeated rackings into casks previously smoked with brimstone, by burning in them rags dipped in melted sulphur.

Major Adlum, formerly of Washington, says, "I have made wine from the common Fox grape, that was pronounced by Thomas Jefferson and others, equal to the Burgundy of Chambertin, one of the best wines in France, and it was at the time compared with Burgundy he had on his table, imported by himself when he was president of the United States."

WINE FROM GRAPE LEAVES.

A gentleman of North Carolina writes in the United States Patent Office Report the following: "Having read that through the discovery by a French chemist, of some property in the vine leaves as in the fruit, good wine could be made of leaves only, I produced from leaves of the Scuppernong grape, a wine that was pronounced by competent judges at our late State Fair, superior to foreign Port. It is made by steaming, say six bushels of leaves for a barrel of wine, in a box made of oak plank with a sheet copper bottom, placed over a furnace. The decoction as the result of such steaming, is mixed with one-third of spirit and one or two pounds of sugar per gallon." He says he makes good wine from *immature* grapes by adding

sugar and spirits. He could have safely omitted the *spirits*, for the juice of immature grapes with sufficient sugar will produce tolerably fair wine. In wine countries, the juice is often boiled down till its fermenting quality is destroyed, and its saccharine matter nearly doubled. This is also sometimes mixed with other wines to give them body and strength. To make a lively sparkling wine, it should be bottled before it has quite ceased fermenting, and a small piece of rock candy put into each bottle, will increase its briskness. In all wines, *age* adds to their soundness and value; and so highly is this prized, that in some of the wine-cellars of the Germans, it is found more than one hundred years old. The Imperial Tokay, has its name from a town in Hungary in which it is made, and it is sometimes sold in Europe at three or four dollars per bottle. It is made by mixing with their common grapes, a portion of luscious, half-dried, shriveled grapes; the latter being absolutely necessary to constitute its peculiar quality. No art is used to fine this wine or to preserve it, and it soon finds its way into the cellars, or *stomachs* of the nobility.

FINING WINE.

Occasionally it occurs that in the process of fermenting, the wine does not settle, and become entirely clear after racking, and requires some substance to precipitate the lees. This can be accom-

plished by *artificial fining*. It can be done in several ways, but Mr. Dufour, of Vevay, Indiana, recommended the following. "One egg to every six or ten gallons, according to the quantity of lees in the wine. The eggs are first beaten until the ropiness is subdued, and then being put into a tub, wine is drawn on them by a spile hole from the cask which is to be fined, and while the wine is running, the eggs are at the same time churned or beaten very briskly until the tub is filled; the whole is then introduced into the cask again, which ought not to be quite full, for the churning will generate an abundant froth which is the very thing that fines the wine; therefore it ought all to be put into the cask—then with a stick introduced by the bung, a good stirring is to be given to the top of the mass of the wine, and the bung made fast. It ought to be performed in a good clear day if possible."

Another method is recommended by Mr. Spooner. "Draw off a gallon or more of wine, then take one quart of *new milk* from the cow, to which add two table spoonfuls of *salt*, and one of *sweet spirits of niter*—mix it with the wine drawn, and pour it into your cask and stir it well; leave the bung loose for about twelve hours and then drive it tight, and in eight to twelve days it will be beautifully bright and will keep for ages, unless it should extract some fermenting principle from the wood of the cask."

PROFITS OF THE VINEYARD.

Profits? says the enterprising Yankee,—"if good profits can result from a vineyard, I'll look into the matter a little." Well then, if you are disposed to consider upon it, you can have the statements of good practical men, and then you may calculate, and whittle over the results, to your own satisfaction. We have the record of Mr. Buchanan, that the year 1853 in Ohio, was favorable, and the yield unusually large, averaging near Cincinnati, 650 gallons of wine to the acre; and from the best cultivated vineyards, from 800 to 900 gallons. He states that he obtained from five acres, 4,236 gallons, or 847 gallons per acre. In some parts of the state the crop was shortened by the rot, and in many vineyards by careless cultivation, so that the average yield for the whole did not exceed 400 gallons to the acre." This wine commands from 75 cents to $1.00 per gallon, at the press! The *Catawba* is the kind principally cultivated in that section, and is considered the best for wine, though the Isabella is used to some extent. In the statistics of Mr. Resor, of Ohio, it appears that in nine successive years after his father's vineyard commenced bearing, it produced equivalent to about 480 gallons per acre, each year. This vineyard, however, was small and favorably situated, and under the care of a judicious proprietor, and the product should not be assumed as the average for the country. Their number of vines on an acre

is usually about 2,400, being planted about three feet by six. Dr. Underhill, of New York, remarks: "There is not a more profitable and certain crop, than the Isabella grape; it will ripen where *corn* will, and not fail once in ten years." Mr. Longworth justly observes, "Those who commence this business and conduct it properly, will make fortunes by it," and we might reasonably conclude that he is correct, for it is stated in the papers at the west, that the tax on his own property is over $30,000 annually! the results of his extensive operations in *American wine*. He puts up from 100,000 to 200,000 bottles of sparkling Catawba annually, which requires from fifteen to twenty months to ripen, and he owns about 130 acres of vineyard, cultivated by twenty-seven tenants, mostly Germans. with their families. Their women assist in the operations of the vineyard according to their usual custom in their native country. Mr. L. says, "that the grape culture will succeed and be profitable and our wine gradually grow into public favor, there can no longer be a doubt. Thus far, our wine has met with a ready sale in our own city, [Cincinnati;] but with the contemplated extension of the cultivation in this vicinity, we shall soon be compelled to look abroad for a market."

Says Mr. Buchanan, "Paper calculations of profits are often deceptive and sometimes mislead those not accustomed to act from their own judgment," and for sake of condensing estimates he gives the following.

Cost of a vineyard per acre, say $250, interest	$15
" " tending, " " "	60
" " making the wine, per acre, say,	25
	$100
Average annual product, say 200 galls., at $1,	200
Supposed profit per acre,	$100

His estimate of the gallons per acre, would appear to be below the usual quantity, as about double that quantity is very generally obtained.

A gentleman in Midway, Ky., who cultivates the vine, writes, that wine can be made in his state as in France or Germany; "that it can be made as cheap as cider, and at fifteen cents a gallon will pay better than any of their staple productions." "And now," says he, for the proof, "say an acre of vines will produce 400 gallons, which at fifteen cents is $60. Six hundred pounds of hemp on an acre of our best land at $5 per hundred, is $30; leaving a balance in favor of the wine of $30, or one hundred per cent. in its favor. An acre of corn, with us, will average fifty bushels, worth thirty cents per bushel, making $15. Balance in favor of the vineyard, per acre, $45. The expense of establishing a vineyard will be balanced by the cost of seeds of hemp and corn sown annually, making all things equal in that respect. The tillage of the vineyard, and making wine, is not so laborious, nor near so expensive per acre, as the tillage and labor of securing the products of an acre of corn or hemp.

If we could get one dollar per gallon for wine when ready for market, or fifty cents at the press, what a source of wealth it would be! Set it down at half these figures and the gold mines of California would be poor in comparison. Only to think, that one hundred acres in vineyard, the product at fifty cents per gallon, amounts to $20,000 per annum! A man having five acres which he could manage himself, would find them more profitable than a Kentucky farm of two hundred acres, with three negroes to cultivate it."

In referring to national advantages in this business, a writer in Putnam's Monthly, observes: "The actual returns from the departments of France, show a grand total of 924,000,000 of gallons, as the yearly produce, of which about 24,000,000 are exported. It is impossible to estimate the value of these wines, so various are the qualities and prices; the vintage of a favorite year in some districts, will command double and treble the price of those preceding or succeeding; estimating the entire crop at fifteen cents the gallon, however, we find the net income reaches the total of $138,600,000! and this from wine at five cents a bottle! A sum more than sufficient to pay off our national debt, or purchase Cuba, or buy a large piece of South America; perhaps enough to include the Amazon, and all in a single year. Here, in a country of such vast extent, embracing every climate, with hill-sides and plains favorable for the cultivation of the grape, and native vines overspreading the forests and

marshes in almost every state, we, professing to be a great agricultural people, thus far, have closed our eyes to these great facts, and, except in a few instances, neglected to avail ourselves of the most fruitful source of national wealth ever within the reach of man! Let us look at another fact. We have seen by Mr. Buchanan's report, that the average yield for the whole state of Ohio, was about 400 gallons of wine to the acre, including vineyards ill and well cultivated. The mean produce per hectare in France, is 617 gallons; a hectare being a little less than two acres and a half; equivalent to about 259 gallons to the acre. But, as we advance southward in our states, we find the vine still more luxurious in its growth. The famous Scuppernong sometimes covers acres with a single vine, the stalk of which is measured by feet in circumference, and the weight of the grapes by tuns. So too, the Isabella is a most prolific bearer in this neighborhood. A gentleman in the country within an hour's ride of New York, planted a single acre with this favorite vine, and he estimates the produce from it at four tuns of grapes per annum! As to the quality of American wine when compared with that of France, let him say who has tasted our common country wine, and the common wine of France. We have ventured to place our wines in comparison not with the *Vin du pays*, but with the most famous vintages of Europe, and even then the verdict has usually resulted in favor of the American wine. So that in quantity and quality, we

may venture to vie with France at least, although the temerity of the act is almost equal to that, which once prompted us to cross bayonets with the veterans of King George the Third, of pious memory. Not alone in the production of wine is this great staple valuable. The seeds of grapes are eaten by birds and fowls; and a fine fixed oil, similar to olive oil, is made from them in Parma, Lombardy, and other parts of Italy, suitable either for cooking, eating or burning in lamps. The cuttings are always salable to propagate new vineyards; cattle are fond of the leaves; the finest printer's ink is made from the charred stalks of old vines, and from the lees of wine we get cream of tartar, which no family should be without. And then the Raisins! whether it be from the enormous crop of children raised annually in our states, or from some other unknown reason, we import more raisins than all the rest of the world put together! Three times as many as England, seven and a half times as many as France, thirteen times as many as Germany, fourteen times as many as Holland, twenty-one and a quarter as many as Italy, and two hundred and fifty times as many as his majesty the Czar. To the rising generation, or citizens in the *pod*, this is of more consequence than all the rest."

Matter like the foregoing might be multiplied, but it may be best to refrain, for should it happen to induce an excitement in Yankeedom like the Rohan or Multicaulis frenzy, the result would be no more desirable, than the blame of being the innocent

cause of it. It appears quite evident, however, that the vine is not an exhausting crop; that it will thrive on poor, sandy or rocky soil, and requires but little manure; that the labor required is light and agreeable, the calling an ancient and honorable one; and if the business is a *paying* one, then why don't you engage in it?

TEMPERANCE. HEALTHFULNESS OF THE GRAPE.

"What! In favor of temperance, and advocating the raising of grapes and the production of wine? Wonder if the writer is a friend to temperance." Yes sir; and one of its earliest advocates too. Enlightened and benevolent minds are now laboring in every state in the union to advance the cause of temperance, and though all may doubtless be patriotic and honest in motive, yet in every good work men differ in opinion as to the most effectual mode of its accomplishment.* Reliable statistics convince us, that the importation of wine has fallen far behind the rate of increase of population in

* In every period of man's history the vine is alluded to as a blessing, and its culture has been coeval with his existence. It is often referred to in Scripture as a blessing, and the vintage was ever hailed as a time of gladness and festivity, to all the region around. Reference to this was made by Isaiah in his predictions concerning Moab. "And gladness is taken away, and joy out of the plentiful field; and in the vineyards there shall be no singing, neither shall there be any shouting: the treaders shall tread out no wine in their presses; I have made their vintage shouting to cease."

England and America, while the production and consumption of alcoholic liquors has increased in a most astounding proportion. A writer well posted up on this subject, remarks: "In non-winegrowing countries where the use of wine is interdicted by extravagant duties, the consumption of spirits increases in an alarming degree. England, with a population of 24,000,000, consumes 28,000,000 gallons of spirits, exclusive of porter, ale and beer; while France, with a population of 33,000,000, consumes but 15,000,000 gallons of her own brandies, and of those a large proportion is used in manufactures, in fortifying wines for shipment, and in the preparation of fruits and confections made only in her own territories. The manufacture of whiskey, spirits, and ale, for home consumption in the United States, amounts to 86,000,000 of gallons annually: this is exclusive of exports! In regard to the high duties on wines in England, Redding says, "The enormity of the duty is the cause of the diminished consumption of wine. In the year 1700, the population of England was 5,475,000, and wine consumed, a little less than 6,000,000 gallons per annum. In 1851, the population was 17,922,000, while the consumption of wine was only 6,448,517 gallons. It is clear that the people of England one hundred and fifty years ago, drank three times as much wine, in proportion, as they do now. The natural consequence has been the increased consumption of spirits. From 1730 to 1830, the consumption of British made spirits increased from

873,840 gallons to 7,732,101, keeping pace with the increase of crime; as if not only the temperature of the atmosphere, but the amount of misery, poverty and crime, were to be gauged by alcohol. Ireland, in 1821, paid duty only on 2,649,170 imperial gallons of home-made spirits, but in 1828, on no less than 9,004,539 gallons. There were made in England, Ireland and Scotland, in the year ending January 5th, 1850, 22,962,000 gallons. It is, therefore, a fact, however much of an anomaly it may appear, that inebriety in that country, has increased with the diminution of the wine consumption, and *morals*, as well as *health*, have suffered by the same decrease, and the augmented use of ardent spirit. We profess a high regard for public morals, and talk about improving the condition of the common people; yet, in typhus, which ravages England so fearfully, wine, the main remedy, is shut out from the poor, while its liberal administration is necessary. Thus the people are encouraged to drink ardent spirit in consequence; but then the revenue profits!"

A very distinguished physician and horticulturist, Dr. Kirtland, of Ohio, in an article on the cultivation of the grape, writes: "I look upon this subject with great interest. During an extensive practice in the medical profession, of more than twenty-five years, I have frequently found it important to employ wine, and other diffusible stimulants as medicines. Whatever other medical men may say or think of the matter, I must state that I can not

in all instances, find in the Materia Medica, a substitute for them; and while I am disposed to go as far as any one in excluding strong drinks from the daily use of people in health, I must express my satisfaction at finding we can produce in our own country a *pure, healthy wine*, well adapted to medical purposes, and far superior to the adulterated, poisonous foreign compounds that often find their way to the bedsides of the sick, under the names of 'Lisbon,' 'Madeira,' &c., &c." Dr. Flagg, in his report to the Cincinnati Horticultural Society, observes: "I am confident that the introduction of pure light wines as a common beverage, will produce a great national and moral reform; one that will be received by our temperance brethren ere long as a national blessing; one that will complete the work they have already begun. The temperance cause is rapidly preparing public sentiment for the introduction of pure American wine. So long as public taste remains vitiated by the use of malt and alcoholic drinks, it will be impossible to introduce light pleasant wines except to a limited extent; but just in proportion as strong drinks are abandoned, a more wholesome one will be substituted. Instead of paying millions to foreigners as we now do, for deleterious drinks, as brandy and wines, let us produce from our own hill-sides, a wholesome beverage that will be within the reach of all—the poor as well as the rich." An intelligent traveler observes, that "among the rural population of France, Italy and Spain, light wines

are in common use among all classes, and we have heard it remarked in derision, that give a man of this class a piece of bread, a few dry figs or dates, a little sweet oil, and a bottle of claret, and he will feast like a lord and be happy. This mode of living is coeval with the introduction of the vine and olives of those countries; and where a man is found indulging in the use of strong drinks, he is the subject of remark and commiseration by his friends and acquaintance. In Havana, all classes make free use of wines; yet, in a population of 20,000 souls, it is a rare thing to hear of a Creole or Spaniard who is in the habit of using distilled spirits."

Judge Woodruff in his travels observes: "Since my arrival in Europe, and throughout my tour thus far, I have often been led to the most painful reflections, upon the intemperate use of ardent spirits, which so alarmingly prevails in my own country. It is with great satisfaction I am waranted to say, that while in Greece, Asia Minor, Malta, Tunis, Port Mahon and Spain, in the whole about six months, I never saw a native of either of these countries in any degree intoxicated; but in most of them, many English, Scotch, Irish, Russians, and (I blush for shame when I say it) *Americans*, in a state of *sottish drunkenness*. These are wine countries. It has often been remarked, that the inhabitants of all such countries, are distinguishable from others, by their disuse of intoxicating liquors. This is literally correct, so far

as I have had opportunity of judging. The wines generally drank there, possess but a small degree of intoxicating properties, not even as great as the well wrought cider of New England, and are the common every-day beverage at the table. It is said by the wine merchants and wine adulterers of the United States, that it is necessary to add spirits to all imported wine in order to prepare it for a sea-voyage, and prevent an acetous fermentation. *This is not true*, and is used only as a pretense, under which they drug and poison most of their wines, increasing the quantity by articles of less value, thereby enabling themselves to increase their profits. All foreign wines, properly fermented, suffer no detriment by the longest voyages, and through the warmest latitudes, but rather increase in their richness and flavor. Temperance in *eating*, also, is not less remarkable and praiseworthy among these people, than temperance in drinking. It is indeed astonishing to an American to observe with how small a quantity of animal food, the Greeks and Turks sustain themselves, and preserve their health, activity and strength. No people have I yet seen who possess all these in a higher degree. Much the greater part of the animal food they use, is cooked in soups, with an abundance of *vegetables* of various kinds. These soups rest lightly and easily upon the stomach, and impart health and vigor to the constitution." The Horticulturist sensibly remarks: "Very few Americans except those who have traveled abroad, estimate properly

the *moral value* of pure light wines, because they very rarely find their way across the Atlantic. As hocks, or claret, contain only about eight or nine per cent of alcohol, they are far more wholesome than coffee, and the cheap production of such wines will do more to decrease the consumption of ardent spirits, than any other circumstance."

President Jefferson said, "No nation is drunken where wine is cheap; and none sober where the dearness of wine substitutes ardent spirits as the common beverage." An intelligent American, Mr. Fisher, after a residence of six years in the wine districts of Europe, writes: "I have passed three years in France, where I never saw a drunken Frenchman—eighteen months in Italy, and in that time not an Italian intoxicated—nearly two years in Switzerland, of which I can not say the same, but I can safely aver, that during that period I did not see twenty drunken Swiss, and whenever my feelings were thus pained, it was invariably on an occasion of extraordinary festivity. In the argument therefore, which may be fairly urged in favor of the cultivation of wine, a strongly inciting motive addresses our personal interests, and invites us to adopt a system, by which our resources will be increased, and our agriculture improved." We are told that fresh and dried grapes are both favorable to health and longevity. Ripe grapes have been administered to whole regiments of French troops who have been ravaged with fluxes and dysenteries, and a cure was soon effected. The

murk or pomace is given to poultry and animals, and is also used in tanning leather, giving it a fine odor, and the leaves are eaten by cattle, giving a fine fragrance to hay when mixed with it.

Dr. Underhill, at a meeting of the Farmer's Club held at the room of the American Institute, New York, said: "I am asked to speak on the grape question, but I can not in the space of an hour give a proper view of it: I will therefore but sketch! The grape is immortalized in history, poetry, in Scripture, in painting. The tendrils of the grape have enwrapped the heart of man in every country where it grows. The grape is so delicious, so salutary—diluting the blood, and causing it to flow easily through the veins, and there is nothing equal to it for old age. In this country its use will grow, will increase until its consumption will be prodigious. It will supplant some of the articles which destroy men, and establish the cheerful body in place of the bloated, diseased systems of the intemperate. No disease of the liver, no dyspepsia, are found among those who freely eat the grape. This remarkable fact is stated in reference to the vineyard portions of France. Persons who are sickly in grape countries, are made well when grapes are ripe, and this result is familiarly called the *grape cure.* In this country, our attention has often been misdirected, and we have spent years and sums of money on *imported* vines. We have proved the fallacy of all this, for the foreign grape will not flourish in our open air. It thrives only under glass.

I suppose that millions of dollars have been lost on these foreign vines during the last century. Climate has settled that question. Time will show that our native stock of grapes will by cultivation gradually improve in quality. It is with them as with animals, great amelioration follows care and proper knowledge. I spent some thousands of dollars on the foreign grape vines, without success. We want to supply our twenty-five million of people with fine grapes! In 1830, France produced 14,000,000,000 pounds of grapes, of which, were consumed on the tables and exported in the form of raisins, &c., 2,000,000,000 pounds.

Are you afraid that our market will be overstocked with the few vineyards which we have? There are many books on the culture of the vine, but their doctrines are generally not at all applicable to our country. Europe has the moisture from the ocean—we have the dry winds blowing over our continent. More heat penetrates our ground in one of our bright, hot days, than England has in a week. The books of Europe are an honor and an ornament to the world, but they lead us from the truth frequently. Such is the great difference between the climates of Europe and America. We must here select our best native grapes—there are many—of which we have now proved the Isabella and Catawba to be excellent. Plant the vines deep, on dry soil, on slaty, calcareous, or other soils, but the dryer they are, the better for the grape. The roots must be deep to avoid our severe

droughts. Plow or dig your ground exceedingly deep, before you plant your vineyard. I have found that in seven years' culture, the savage musk of my Isabella has vanished, and its character is greatly changed for the better. Its pulp is almost gone, and its seeds are less. The culture of the vine has one great and eminent advantage over all other crops. If you plant it well, you will get an increasing crop for twenty-five years; and for every year (with rare exceptions) a good crop even for seventy-five years, and on our native vines you can have double the quantity which is obtained from a vine in Europe, where it has from ages of short pruning, become feeble, and past its perfection. We do not let our vines bear one-half as many grapes as they would if all were left on. Thin them out well, and you will have better and richer fruit."

From the Genesee Farmer, 1854: "The use of grapes as an article of food, is much recommended in cases of consumption. They contain a large quantity of grape sugar, the kind which most nearly resembles milk sugar in its character and composition, which is also useful for consumptives, it having a great attraction for oxygen, and readily affording materials for respiration."

The writer is not to be understood as fully indorsing *all* which has been or might be quoted in favor of the daily and free use of wine by persons in health, but rather is desirous of sustaining the opinion substantiated by reliable evidence and by common sense, that the home production and

judicious use of our native wines will, by correcting the vitiated taste, exclude the consumption of the drugged foreign kinds, and divert the national, reprehensible passion for alcoholic stimulus, into a more genial channel "which cheers but not inebriates"—which invigorates health, but blunts not the reason and moral sensibilities of man. This world although bearing unmistakable and pleasing evidence of progress, is not yet so sublimated and pure as to crusade upon all customs and rites of past ages; nor will the Christian churches be likely soon to inhibit the production of an article, so common and essential in the solemn rites of the Christian communion. But well might they pause and ask, whether the thing which they honor by the name of *wine*, and ordinarily procure for those purposes, is the pure symbol which our Great Master ordained for the sacrament? In reality, is it not sometimes a fact that they undesignedly use for that sacred purpose, a substance disguised with compounds, among the ingredients of which are not to be found upon analysis, *one single particle* obtained pure from the vintage.

VARIETIES FOR THE NORTH.

There is such a diversity in tastes and opinions among grape-growers, that had I any reputation to loose as a very *extensive* cultivator, it might not be prudent to give an absolute preference for a single *one*, among so good a variety as we can so easily

procure. For latitude 40 to 45 there are, at least, three or four native kinds, (besides the common Fox grapes,) which appear to withstand the climate, and bear abundantly.

Let it be distinctly understood, that in all the foreign kinds, *not one* has been brought to notice as yet, which has proved its general adaptation for open culture in our climate. Not only my own experience, but scores of others have determined this fact. Some years ago forty acres were planted on Long Island, with 150,000 foreign vines of various sorts. But after some years of effort and expense, the proprietor was doomed to disappointment and finally abandoned the enterprise. The Swiss of Vevay, Indiana, who, many years ago, planted a number of acres with foreign varieties, were unsuccessful until they were forced to abandon them, and substitute our native kinds in their stead.

The *Isabella* grape, unquestionably, stands first in estimation of the public, as to quality and productiveness in this latitude. It is believed to be a native of South Carolina, and singular to say, is even more prolific here, than at the south! It was obtained from thence by the wife of George Gibbs, Esq., of Brooklyn, about 1816, and in compliment to her, it was christened by her name, *Isabella.* By judicious culture it has now become acclimated to the north, and is raised throughout New England, and to some extent in Canada. It is found that its period of ripening has been shortened since its first introduction here, and it now comes to maturity,

from one to two weeks earlier than formerly. It has a thin skin, and tender pulp, juicy and fine flavor, and is an abundant bearer. It produces a wine similar to light Madeira, requiring from one to two pounds of sugar per gallon in its fermentation. It ripens in the latter part of September.

The *Catawba* grape was discovered in North Carolina, in 1802, and has since been found on the Arkansas river, in about the same latitude. Its merits as a wine grape, were first brought to notice by Major John Adlum, of Washington, D. C., some thirty years ago, and so sanguine was he of its superior properties for *wine*, that he remarked that in bringing this grape into notice, he had conferred a greater favor on his country, than if he had paid off the national debt. Its period of ripening is a little later than the Isabella, and requires with us, a favorable season for its perfect maturity. It is not so full a bearer as the Isabella, but for wine it is preferred to any other kind—particularly at the south and west. A superior variety, called the *Hartford Prolific*, has recently come into notoriety at Hartford, Conn., which bids fair to excel in some desirable points. It is probably a seedling from the Isabella, and has improved upon the good character of its illustrious parent, by ripening about two weeks earlier—say in the early part of September—a recommendation much in its favor, especially in seasons which are not propitious for other kinds. In its taste, it is distinguished from the Isabella by a slight muskiness, which is relished by many.

Its name *Prolific*, indicates its fruitful character, which has been fully tested by Mr. P. D. Stillman, of Hartford, and others. Mr. S., informs me that he has a vine four years old, from the cutting, which bears from three to four hundred fine clusters annually, and from what I have seen and tasted of them, I am satisfied that this variety is an important acquisition.

Another grape called the *Concord*, has lately occasioned a little extra excitement around Boston, and has been honored with some pretty large puffs in the papers. Few in this region have ventured to cultivate an acquaintance with it at the price demanded, ($5 per root,) especially as they do not discover anything in its taste or appearance quite equal to all which is claimed for it. It is, however, a good grape, and is perfectly hardy. It has a bloom similar to the Black Hamburg, and ripens about the middle of September.

The *Diana.* This is a seedling from the Catawba, and is an improvement upon that variety, by its ripening a little earlier, say between that and the Isabella. It is somewhat smaller than either of the other two—has less pulp, and is thought by many to be a rich grape. It was raised by Mrs. Diana Crehore, of Boston, and was named by the Mass. Horticultural Society. The *Cape Grape* is a kind from which good wine is made at the west,—is a plentiful bearer and a native of Pennsylvania.

The famous *Scuppernong*, of North Carolina,

says Longworth, bears from one to four berries on a bunch, and would in time of war, if lead be scarce, even when fully ripe, be as valuable as the Fox Grape for *bullets*. The berries, however, are large, sometimes measuring four inches in circumferance. It is not hardy at the north. The American Pomological Society, which met in Boston, September, 1854, recommended three kinds—the *Catawba*, *Diana* and *Isabella*, as being the best for general open cultivation, and their judgment is concurred in by other successful fruit-growers. They might, however, have with propriety, added the *Hartford Prolific* to the number. It is unnecessary to enumerate a large number, among the hundreds of varieties which are indigenous to our country, for with the grape as with other fruits, a *few choice, established kinds*, are better than the whole catalogue enumerated in our nurseries.

VINEYARDS IN THE UNITED STATES.

"The vine too, here her curling tendrils shoots;
Hangs out her clusters, glowing to the south;
And scarcely wishes for a warmer sky."

It appears from numerous records, that the vine was found in North America at a very early period. Adventurers from the north of Europe, found their way to the northern part of this continent, as early as the ninth or tenth centuries, according to the published researches of eminent historians, and long before the western voyage of Columbus. In the

year 1001, they coasted along from Greenland, as far south as New England, where they found the vine in such profusion, that they gave the land a name expressive of its produce, and called it "*Winland dat Gode*," (the good Vineland.) We are also told, that when the first settlers of New England came, they found vines growing wild on the hills, and Indian corn on the plains, just as the Northmen did centuries before them. The earliest attempts at vine cultivation in the United States, were made by the London Company, who established a vineyard in Virginia, about the year 1620. In that year, over 1200 emigrants arrived, and it is supposed that the vines were brought with them from France at that time. The infant colony had heretofore been extremely unfortunate, and great efforts were made to place them in a more flourishing condition. Most of them were in single life, and in order to attach them permanently to the country, about ninety young women were prevailed upon to embark for the colony. Upon their arrival, no difficulty was experienced in finding agreeable partners,—the price of a wife being about 150 pounds of *tobacco*. Thus, with the tendrils of domestic affection, and the tendrils of the vine, it was fondly hoped that brighter and happier days would shine upon them. But alas! in three years after, 347 of their number fell in one hour, by the hands of the remorseless savage. From this time, we hear nothing more respecting their vineyard.

Master Ralph Sone, in 1585, says of the grapes

found in this country, " Grapes of suche greatnesse yet wild, as France, Spain nor Italie have no greater." Dufour, an intelligent Swiss settler at Vevay, Indiana, states that the Jesuits had a successful vineyard on the Mississippi, when that country belonged to the French, but were finally ordered by the French government to destroy it for fear that the culture of the grape in this country would hurt the wine trade of France. We are told also, that Spain interdicted the planting of vineyards in Mexico, apprehending danger to the wine interest of their own country. Indeed, they reasoned correctly, that from the luxuriance of the American vine, their craft would be in danger,— that the days of our dependence on the old countries for wine, would soon be numbered. Numerous vineyards have been planted, and considerable wine made in our country at various periods; but, to Nicholas Longworth, of Cincinnati, who commenced vine culture about thirty years since, are we indebted for a great deal of reliable knowledge upon this interesting and useful subject. He has spent much time and money in the business, and has generously given to the public, the pleasing results of his exertions.

In the Patent Office Report, 1854, is an article which exhibits the present magnitude of the wine interest in this country. It is from the Cincinnati Republican. " The grape culture and wine interests of our community, are fraught with very considerable importance now, and must eventually become

a great and absorbing feature of the state's property. Fields of waving corn or golden-tasseled wheat are fair to the view; but picture to yourself the vast vineyards that shall anon deck the hill and dale, with gorgeous and tempting, rich, red, ripe Isabellas or Catawbas. The third year after planting the slips, the production of wine may be commenced from the fruit. There is more expense and labor in commencing the cultivation of the vines, than is probably attendant upon the planting of the usual crops, but *less* afterward. From one acre well planted with healthy vines, probably from $600 to $1,000 worth of wine may be produced in good seasons. This wine has generally brought $1 per gallon here, but this year will probably bring $1.25. Notwithstanding the immense annual increase of the quantity of wine manufactured in the west, the price continues to improve, and it must do so as the wine becomes more generally known. This year, notwithstanding the increase, the price has raised nearly twenty-five per cent., and the demand for wine is much greater than last year. So must this demand continue increasing.

"In Ohio there are about fifteen hundred acres of land exclusively devoted to grape-growing, between three and four hundred of which, are near Cincinnati. Within twenty miles of this city, including a part of Kentucky on the opposite side of the river, there are thirteen hundred acres, and double that quantity of vines. More have been planted this year than there were last. In Missouri near

Hermann, there are five hundred acres—in Indiana, two or three hundred—in Illinois about one hundred; and in Kentucky the same—making about twenty-five hundred acres in all. It is estimated that Indiana, Ohio and Kentucky, will this year produce at least half a million gallons of wine! The yield on some of the vineyards will be equal to seven or eight thousand gallons—allowing twenty-four hundred vines to the acre. planted about three feet apart each way. Mr. Robert Buchanan, who is among the most successful cultivators of the vine, this year obtains about eight hundred gallons of wine from each acre, which will net him about seven hundred dollars per acre! Some other vineyards will do equally well. Persons however, are not advised to embark in grape-growing with the expectation of profit, if it shall be necessary to hire labor. The German vine-dressers muster all capable members of their family into the service—the wife often being the most efficient. In this manner they realize an adequate income. It has been customary to give a piece of land of say fifteen or twenty acres, with a house on it, to those Germans, on condition that the tenant shall plant a certain quantity of grapes each year in a proper manner, and pay the proprietor one-half the proceeds of the vineyard.

"The fruit is purchased of the vineyard man, for from five to six dollars per one hundred pounds, (or two bushels) each bushel yielding three and a half to four gallons of wine. It is then mashed by the

manufacturers in the city, and pressed. The juice is then fermented in the cellars, and the sparkling Catawba is in prime order for market at the end of fifteen or twenty months. A few days ago we visited the wine-vaults of Mr. Longworth, and the following facts were derived. There are three vaults, one of which will turn out fifty thousand bottles every year, and another one hundred thousand bottles yearly of dry wine. Some portion of the cellars is occupied by immense butts or cylindrical tanks, one of which holds five thousand gallons, or five thousand dollars worth of wine if bottled. The staves are about three inches in thickness, and the heads curved inward, so as to introduce the arch to resist the internal pressure. Other objects quite as noticeable, are the long rows of black bottles placed in a horizontal position, and stacked up like cord wood in solid piles as high as one's neck. In the cellars of the extensive native-wine establishments of Longworth and Zimmerman, are twenty-four casks, holding about twenty-five hundred gallons each, or sixty thousand gallons altogether, of the vintage of 1850–51–52, and it is expected to store twenty-five thousand gallons of this year's wine.

" Mr. Longworth will this year have on hand, for sale, about two hundred thousand bottles of Sparkling Catawba; Messrs. Longworth and Zimmerman some sixty thousand bottles of Dry Catawba, exclusive of a quantity of wine sufficient for one hundred and ninety thousand bottles; Messrs.

Bogen, Cornew and Son, Work and others, from ninety to one hundred thousand bottles of Catawba."

A writer in New York says: "In our own state there is already much wine made from the Isabella grape—in Orange county—in Columbia county—among the Shakers—and on the banks of the Hudson in the neighborhood of the city. We have tried many of these wines, and although want of experience and improper treatment are manifest, yet there is sufficient merit in them, to insure us in the prediction, that the grape culture will soon prove to be one of the most valuable fields for enterprise ever presented to the people of the state of New York. Here is the soil, here the climate for the Isabella; as Ohio is to the Catawba, so will this state be to this grape. Here, too, is the market, so the cost of transportation will be trifling; and the day may not be far off when ships shall lay beside the rich vineyards on the Hudson's banks, to receive the golden fraughtage for distant Europe. In comparing our wines with those of Europe, we must bear in mind that they are distinct in flavor from any, or all of them. Sparkling Catawba is not Champagne, nor can Isabella be compared with any other wine known in the world. It is a peculiarity of these wines that no spurious compounds can be made to imitate them, and in purity and delicacy, there is none equal to them." The most expensive wine in Europe is the Tokay, and it is also the lowest in alcoholic per-centage, being 9.85. But we find by the analysis of Dr. Chilton, that

Still Catawba shows a per-centage of only 9.50—being in fact, the lowest proportion of spirit to be found in any wine in the world! By the United States census statistics of 1840, there were produced of domestic wine 124,734 gallons, and in 1850, 221,249 gallons. This estimate is doubtless much less than the quantity actually produced, as material inaccuracies in collecting our statistics, are obvious to those who, like the writer, have been employed in the compilation of its cumbrous returns. The Commissioner of Patents estimates, that for the year 1853, no less than two million gallons was the produce of that year in the United States, and its value about two million dollars. In some parts of Massachusetts vineyards are beginning to be introduced for wine production, and though not many vineyards are yet noticeable in Connecticut, still some hundreds of gallons of wine are now annually made, and chiefly from the Fox grapes, which grow in a wild state so abundantly.

FOREIGN VINEYARDS.

It is a matter of serious interest to our nation, that the vine throughout Europe, appears to be entering upon its period of decline. The genius and glory of the Old World are on the wane, and will soon be eclipsed by our mighty fabric of freedom, and the generous vine, as if in sympathy with its fond guardians, unclasps its tendrils, and withers in the blight of empires!

A blast or mildew attacks the fruit soon after it begins to form, and increasing with its growth, extends to the leaves, and soon covers the whole vine, which speedily dies. The United States consul for Portugal, Mr. Pike, writes to Mr. Marcy, Secretary of State, January 7th, 1854. "I have seen whole vineyards near Oporto in this condition, having the appearance of being dried by a scorching sun. Many of the farmers in the vicinity who made from twenty to thirty pipes of wine in former years, have not been able to produce more than five pipes the last vintage, and then by carefully picking the fruit. I have discovered the fungus on the fairest and best fruit, which has been carefully selected by myself for examination. Many cases have come under my observation, of sickness at the stomach and vomiting, after eating the fruit that is diseased. Brandies and wines have advanced in price one hundred per cent., and are still advancing. As wine and oil are the principal products of this country, the consequences of a failure of them will be a great calamity."

An intelligent writer before quoted remarks: "There is not an indigenous grape in Europe. The stock is of *Asiatic* origin, and both history and fable unite in attributing it to the Orient. The Phœnicians introduced its culture on the islands of the Archipelago, in Greece, in Sicily; lastly in Italy and in the territories of Marseilles. Thence it extended over the whole south of France, and the Johnny Crapeaus had their claret and olives; and

probably drank to the health of Nebuchadnezzar when he captured Jerusalem, June 9th, 587 years B. C. The next important event connected with its history, was the succession of Domitian the cruel and rapacious, who ordered its extirpation as well as the extirpation of Christianity. Two hundred years after, the wise and valiant Probus restores to Gallia Antiqua, liberty to plant vines. The remembrance of that culture, and of the great advantage procured by it, was not yet all gone from the memory of men; for tradition had kept even the details most necessary in the art of vine-dressing. The vines brought again from Sicily, Greece, the Archipelago, and Africa, became the origin of those innumerable species of grapes that now cover France. It was a charming and grand spectacle to see crowds of men, women and children spontaneously and eagerly devoting themselves with enthusiasm, to that grand and sublime restoration of liberty to replant vineyards. Effectually, all could take part in it, for the culture has that peculiar to itself, that it offers occupation to suit the strength of both sexes of all ages. But let us look at the *present* condition of the vine in Europe. A few years ago there appeared a disease among the vines of Madeira, which, up to the present time has not ceased to exist, and so extensive have been its ravages, that entire districts have been completely stripped not only of the grapes, but of the vines themselves. Simultaneously the vines on the Douro were affected; the grapes of Medoc, in the

south of Spain; in Italy, and in fact, more or less throughout the vine countries of the Old World. There is no doubt but that the famous wines of the south, in the course of a few years, will be no more. In Madeira, the vines are rooted up and cast out from the most celebrated vineyards—the old established wine-houses are winding up their affairs as speedily as possible; commerce has ceased almost entirely, and this once famous island presents as cheerless an aspect, as the shop of a bankrupt. The '*Old Port*' which Englishmen were wont to praise, is no longer yielded by the generous grape of the Douro. In Italy, the Orvieto, and the Monte Fiascone, will soon be historical wines only—wines of traditional excellence; and France, proud France, has yet to see her dreariest days! If, then, we call to mind that all the vines of Europe are of one stock, derived mainly from the wild grape of Persia; that these have been propagated by one method only—layers or cuttings, through many centuries—that this is opposed to the method by which nature produces its kinds, and that one common fatal disorder has attacked these vines at the same time, a disorder whose end is certain extermination, we must incline to the belief that some general cause has produced so general an effect. It can not be in climate, for climates vary; it can not be in soil, for soils vary; it can not be in the culture, for cultures vary; nor can it be in the species, for species vary. What if it be in the *method of propagation?* What if cutting after cutting, have, at last, exhaust-

ed the reproductive powers of Nature, even in the vine, the most hardy of her children? This is not unworthy of consideration. The potato, subjected to similar treatment, yields up its Irish ghost in less than three centuries; and why not the vine in more than twenty? Europe may have to return to the wild grapes of Ferdistan for her future vineyards, or she may supplant her vineyards with the Isabellas, Catawbas, and Scuppernongs of America. The average produce of the vineyards of the old world heretofore, has been over two thousand millions of gallons of wine annually, an amount almost beyond the limits of finite comprehension. Whither this mighty revenue will drift, as the oriental vine bows before time, fate, and circumstance, is the question? Here where the soil and climate unite to produce the largest yield, and the spontaneous growth of the grape is without a parallel, here seems to present a golden opportunity. What if we neglect it? What if we embrace it?"

DURABILITY AND FRUITFULNESS OF THE VINE.

There are some advantages to be attained, decidedly favorable in the culture of the grape in the United States; among which are its early bearing qualities, its prodigious fruitfulness, and its great longevity if properly nurtured. When propagated from a layer, fruit is often obtained the next season after it is rooted, and then, for every succeeding year, even for centuries to come. Thus in planting

a vine, we may reasonably expect to eat of its delicious fruit—to quaff if we choose its invigorating juice—to sit under our own vine, if not under our own fig-tree, and to inhale the sweet fragrance of its foliage; and then you bequeath to coming generations a memento of your industry and care, more appreciable than the fleeting breath of present fame, or the honors of political distinction.

On the continent of Europe, their vines have been considered young at the age of one hundred years, and one in England (the North Allerton) lived to the age of four hundred years, and died some twenty-five years since. It was one hundred and fifty feet in length, and measured near the root about four feet in circumference. Pliny gives an account of a vine six hundred years old.

Wine was made in England in the twelfth century, but all of the best grapes of that country now, are raised under glass. I am informed there is a vine in the gardens of Queen Victoria, under glass, from which all the fruit is plucked every other year, while in its green state, and none of it is permitted to ripen; and each succeeding alternate season, *all* is allowed to remain and ripen, and the quantity at each gathering is estimated at the enormous amount of six tuns! Verily, the British Queen does not seem willing to be outrivaled in *any* particular, in her extraordinary *bearing* qualities.

The United States surpass all other countries in the fruitfulness of their vines in the open air. A vine was raised near Baltimore, Maryland, by Mr.

Willis, which, in 1832, produced twenty-five thousand bunches of grapes, and in the succeeding year his neighbors, Messrs. Bromwell and Monkland, certify that they counted fifty-four thousand four hundred and ninety clusters, omitting small and green ones, which would have added at least three thousand more, making about fifty-eight thousand clusters! One remarks, that those gentlemen should have waited until those young ones grew up; and that to leave three thousand bunches out of the tally, because they were young and green, is really an insult to "Young America."

An Isabella vine growing on the premises of Mr. M. C. Webster at Hartford, is worthy of notice in this connection. It is said to be only about six years old, and is planted by the side of a building, and trained upon its walls, and principally covers two sides of the building. The total length of its main branches, I found by actual measurement, to be more than three hundred and fifty feet, and it affords from six to eight bushels of grapes annually, for which the proprietor is offered twelve and a half cents per pound for all which he chooses to dispose of, besides many roots and cuttings which he sells each season. The system of pruning appears to be, merely to cut off in the winter, a part of the growth of the preceding year, leaving from two to four buds or joints on each shoot for bearers the coming year. How far his vine will run in fifty or one hundred years, if allowed to extend, and the amount of fruit it will then produce, it would be

difficult to determine. Now if at six years of age, an Isabella vine will net the owner thirty or forty dollars yearly, the investment pays a very liberal rate of interest, and may yet claim the profound attention of those who have the peculiar sagacity to perpetuate our statute laws on the subject of *usury*.

A writer observes, that single vines of the Scuppernong of Carolina, have been known to yield grapes enough to make several barrels of wine, and to cover two and a half acres of ground. The mode of cultivating the Scuppernong is peculiar. The vines (layers, not cuttings) are planted in the vineyard one hundred feet apart, the main branches having space to run fifty feet each way, at right angles from the center, the laterals intersecting overhead, and forming a canopy. The branches are seldom pruned, as it is said the vine would bleed to death if pruned like other kinds. Like the vines in Lombardy, these are high trained, the lowest branches being eight feet above, and parallel with the ground. They can be made to cover an endless extent, for like the banian tree, its pendant limbs approach the ground, and naturally strike root of themselves. At the vineyard of Mr. Weller, about eighteen miles from Wilmington, N. C., a square was laid out and measured, and from the quantity gathered in the square from two vines, it was estimated that the two would yield one hundred and fifty barrels of grapes. Taking the weight of a barrel at two hundred pounds, this would amount to fifteen thousand pounds for each vine, or seven

and a half tuns! Surpassing even the pet vine of Queen Victoria.

BLACKBERRY WINE.

It is surprising so few people are aware that a fruit found so common in our fields and hedges, is capable of affording wine of most excellent quality, and very medicinal. Both the berry and the root of this bramble, are found to be useful in disorders of the stomach and bowels, and have been used with great advantage. There are two kinds which are common, and both may be used for wine, but the fruit which grows on prickly stalks from three to six feet high is the best, and contains a sub-acid agreeable to the taste.

To make this wine, press out the juice through a coarse cloth or strainer, and to each gallon before it is fermented, add one quart of water and about three pounds of good sugar, white or brown, (white is preferable,) and stir it together until the sugar is dissolved. Then put it into a clean keg or barrel, and set it in a cool place with the bung open; and it will ferment powerfully for several weeks, according to the heat of the weather. The lees will at length settle to the bottom, and when it is clear, it should be carefully drawn off into another cask, or other vessel, or can be bottled for use. Do not put the liquor at first into a *jug* for fermentation, as it would then be impossible to turn it off from the lees without disturbing the whole, and the wine

would become turbid or roily. This wine ripens very fast, and becomes sound and drinkable in a few months, and possesses a rich vinous flavor.

BLACKBERRY SYRUP

Has been used with the best effect in bowel complaints and dysenteries. It can be made as follows. Take two quarts of juice of high vine blackberries—two pounds of loaf sugar—one ounce of cinnamon—one half ounce of nutmeg—one half ounce of cloves—one quarter ounce of allspice, all pulverized. Boil all together fifteen minutes, and when cold, strain it and add one pint of pure French brandy. Take from one tea-spoonful to a wine-glass of it, diluted with water, according to age, until cured. If *pure* French brandy can not be procured, sound blackberry wine, say double the quantity, might doubtless be substituted in its place. The spices can be varied to suit the taste.

Another remedy for that afflicting disorder the dysentery, has been found so beneficial, and has been so often prescribed by medical men, that I feel induced in this place to insert it for the benefit of those who may be thus afflicted. Take one tea-spoonful of best Turkey rhubarb pulverized—one tea-spoonful of cinnamon—one tea-spoonful of saleratus—one handful of peppermint plant—loaf sugar sufficient to sweeten, (a table-spoon of charcoal is sometimes added to the mixture)—pour on one-half pint of boiling water, and when cold add

two table-spoons of pure French brandy. Dose one table-spoonful every hour, or according to the violence of the disease. This simple remedy is said to have relieved thousands, when taken at the commencement of the disease, or soon after.

ENGLISH CHERRY WINE.

Let the cherries be well ripened, mash them with a pounder, or with the hands in a cloth, and to three quarts of the juice, add one quart of water and about three pounds of sugar. It is fermented, and improves by age like other kinds, and makes a strong, brisk wine.

CURRANT WINE.

The common method of making this wine, is to bruise the currants and squeeze out the juice through a cloth or in a press, and then to each quart of the juice add two quarts of water, and about three pounds of brown sugar, which make one gallon. (It can be noted here that in making wine, three pounds of sugar equal one quart of liquid.) Its fermentation is similar to other wines. The properties of the currant are in a slight degree astringent and antiseptic, and it makes a pleasant cooling beverage in hot weather. It requires, however, so much water in forming the wine, that it contains no aroma or body, except what is afforded by its acid and the sugar, and is not considered

particularly excellent or valuable, by those who understand what constitutes *good* wine.

About thirty years ago, a currant plantation of about forty acres was set out near Providence, R. I., and the wine from it sold mostly in the West Indies. The proprietor expressed his confidence that he would soon be able to make it produce two hundred pipes per annum. But as nothing has since been said about it, most likely the enterprise has been abandoned.

ELDERBERRY WINE.

This berry, as well as the bark of the bush, is a mild cathartic, and is sometimes used in syrups to cleanse the blood, and as an alterative and diuretic, has been administered in cases of dropsy. In Germany, a very pure and strong spirit is distilled from this fruit, after it has been sweetened by night frosts. Wine can easily be made from it, and by some it is considered as being very agreeable. The following recipe for its manufacture was written by a medical friend, and has been tested favorably,

Recipe for ten gallons. Select dead-ripe berries. and let them stand two or three days after picking; then press out the juice; and for every three gallons of juice use seven gallons of water, and three and a half pounds of sugar for every gallon of liquid thus formed. For the whole quantity add one gill of yeast, and when fermented, skim, and add one ounce of root-ginger—two ounces of cloves—three ounces

of allspice, pulverized, and one quart of French brandy; then cask, or bottle for use. Of course a less quantity can be formed if desired, by substituting quarts for gallons, and altering the other ingredients in proportion; and blackberry or grape wine would be preferred by many, instead of the *common* French brandy.

Another mode of making wine from the elderberry, is practiced in England, according to the following recipe, which was kindly furnished for the writer, by an English lady, together with a sample of the wine, which upon trial, is found to be no disparagement to the skill or taste of any lady.

To one quart of berries fully ripe, add one quart of water, and boil together ten minutes; squeeze out the liquid, and to each quart add one pound of sugar—then boil again five minutes—toast a piece of bread and soak it over night in good yeast, and put the bread into the wine, and let it remain for two or three weeks, or until well fermented—then bung up tight, and draw it off carefully from the lees in the spring and bottle it up; and into each bottle put a small quantity of root-ginger and cork tight.

WHORTLEBERRY WINE.

These berries were very abundant in the year 1854, and a grocer in Hartford, having accumulated a large quantity on hand, filled a barrel full of them to the bung, and then poured molasses in upon

them until it was full. A powerful fermentation followed, and in two or three months, a clear, pleasant wine, or syrup, was drawn from the cask. He then turned the barrel on the end—took out the head, and readily sold the berries for making pies and dessert. The liquid was much esteemed, and was found, like the berries, to be an active diuretic, and very efficient in urinary obstructions. It is very probable that the like process with the blackberry and other fruit, would produce a pleasant beverage, and with very little trouble.

STRAWBERRY WINE.

A precious aromatic wine can be made from this delicate fruit, as follows. Add to the berries one-third their weight of good sugar—mash well together, and let it stand a few days until it ferments a little, then press out the juice and add to it one-fourth its measure of water, and sugar to sweeten well. Let it ferment for a few weeks without running over, and with little exposure to the air; then draw off carefully and bottle for use.

TOMATO WINE.

A sample has recently been presented to the writer, by a neighbor, formed from the juice of the yellow tomato. The recipe for making it had been lost, but is believed to be similar to the process before described in making other kinds, with an

addition of some spices. When unbottled, it exhibits a brisk effervescence, and a critic in taste would hardly discover from what substance it was made. It is of a rich cream color, and doubtless contains the wholesome medicinal properties of the tomato.

TO IMPROVE POOR WINE.

Draw it off and mix a quantity of raisins, bruised, or raisins and honey; and return it into a cask well cleansed. It can also be strengthened by placing it in a cold situation, where the superfluous water will freeze, and the essential part of the wine can then be emptied out or drawn off. Sour wine can be improved by adding to it chalk, or oyster-shells, burned. The Germans put a small quantity of powdered charcoal into the wine when sour, and shake it well, and after it has remained still for about forty-eight hours, carefully rack it off into clean casks.

In bottling wine or cider, lay the bottles on their *sides*, and not on their ends, and put them in a cool place in saw-dust, sand, or other substance to preserve a uniform temperature as possible.

ELDERBERRY SYRUP.

Wash and strain the berries, which should be perfectly ripe. To one pint of juice add one pint of good molasses. Boil it twenty minutes, stirring it

constantly; then take it from the fire—when cold, add to each quart four table-spoonfuls of pure brandy, or twice that quantity of grape wine—bottle and cork it tight. This is an excellent remedy for a tight cough.

CRANBERRY, GRAPE AND CURRANT JELLY,

Are all made in the same manner. Gather the fruit in its prime, wash and drain it till nearly dry, then put it in an earthen jar or pot, and set the pot in a kettle of hot water—set the kettle where the water will boil, taking care that none gets into the jar. When the fruit breaks, turn it into a flannel bag, and let it drain slowly through into a deep dish without squeezing. When the juice has all passed through the bag, put to each pint of it, a pound and a half of white sugar—put to each quart of the syrup the beaten white of an egg—set the syrup where it will boil gently—as fast as any scum rises take the syrup from the fire and skim it clear. When the jelly has boiled fifteen or twenty minutes, try a little of it in a tumbler of cold water—if it sinks to the bottom in a solid lump, it is sufficiently boiled. Jellies are improved by standing in the sun for several days, but care should be taken that dew does not fall on them. Housekeepers often find it difficult to form their fruits into jelly; but if the above is strictly followed, success is pretty certain.

TO MAKE RAISINS.

Any family, says Mr. Spooner, may prepare their own raisins from perfectly ripe, handsome, sweet grapes, as follows. Make a strong lye of wood ashes, put it in a vessel over the fire, and when at boiling heat plunge in the clusters, and suffer them to wilt in the liquid, when they are to be drawn out after becoming withered and wrinkled. They are then drained, and spread on hurdles to dry, in an oven or the sun,—the alkali does not penetrate into the fruit, but it has a great effect in rendering the skins tender, and does not injure the acid of the grape.

TO KEEP GRAPES FRESH IN WINTER.

The writer has been successful in preserving Isabella grapes through the winter, fresh and nice as when first gathered, and at this present time, (March,) has them sound and in good condition, by the following method. Procure clean saw-dust, (that from cedar wood is best if obtainable,) and dry it *very thoroughly* in an oven or in the sun, and provide a tight cask or box in which to pack the fruit. Let the grapes remain upon the vines as late as practicable, or until there is danger from hard frost,—then carefully pick off sound, well ripened clusters, and cover the bottom of your box with a layer of the saw-dust—then carefully place in a layer of the clusters, then the saw-dust, and so on

until the box is full,—cover it tight and keep it in a dry, cool place, but where the contents will not freeze. Be careful that any of the grapes do not separate from the stems, as the juice would exude, and the dust would be liable to mould or sour. Some people burn or wax the ends of the stems, believing that it will tend to prevent the escape of the moisture in the fruit. Some have used *bran, thoroughly dried*, in which to pack the grapes. Others place the bunches between layers of *cotton*, in a cool, dry place, and they can in this way be preserved for a time in a very nice condition.